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EXAMINER

Tuan T. Dinh

ART UNIT

2827

EXAMINER'S FAX NUMBER

(703) 872-9318

FROM: Peter S. Zawilski

REGISTRATION NUMBER:

43,305

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RE:

SERIAL NO.

10/001,271

DOCKET NO.

US 018154

3 Pages (including cover sheet)

This transmission includes:

Response to Restriction Requirement 14-JAN-2003

Cortificate	οf	Transmission und	ler 37	CFR	1.8
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on February 3, 2003.

PHILIPS ELECTRONICS NORTH AMERICA CORPORATION

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Group: 2827

Examiner: Tuan T. Dinh

Docket No.: US 018154

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Mike C. Loo.

Serial No. 10/001,271

Filed: December 4, 2001

For: Optimum Power and Ground Bump Pad and Bump

Patterns for Flip Chip Packaging

AMENDMENT UNDER 37 CFR §1.111

Assistant Commissioner of Patents Washington, DC 20231

Sir:

In response to the Official Action dated January 14, 2003, please amend this application as set forth below. Please change docket number as noted above.

In the Claims

Please amend the application as follows:

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Please cancel claim 11 through 17 without prejudice.

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<u>Remarks</u>

Applicant acknowledges Examiner's imposing of restriction on submitted claims per 35 U.S.C. §121.

Applicant elects to prosecute claims 1 through 10, drawn to a method for fabricating a semiconductor structure, classified in class 177, subclass 262.

Applicant respectfully traverses Examiner's requirement for election of patentable distinct species of the claimed invention. Figure 2 explains "for optimum routing and electrical performance it is necessary to position the chip bumps for power and ground bumps at specific positions. Without this, optimum results are not obtained. . .Some of the signals need to go to the second layer and back through the first layer through microvias. Routing will be more difficult. . .(page 3, paragraph 0013 of Specification)" Figure 2 is outlining the challenge involved if the present invention is not used. Figure 3 outlines an example embodiment of the claimed invention. "Ideally, it is desirable that connections from a bump pad to a plane be made in as direct a manner as possible. Figure 3 illustrates one such arrangement. . . (page 3, paragraph 0014 of Specification)".

Page 1 of 2 Docket US 018154 Appl. No. 10/001,271 Therefore, there is no Species I as asserted by the Examiner. Claims 1 - 5 would likely map to Species II.

Figures 4(a) and 4(b) illustrates the arrangement of chip bumps in either in an orthogonal pattern, as in Figure 4(a) or in a staggered pattern, as in Figure 4(b). Again, Applicant believes no distinct Species III and IV have been claimed. Claims 6 – 10 may be applicable to both.

Applicant is puzzled at Examiner's imposition of two restriction requirements. Applicant clearly sees the rationale for the restriction as stated in Paragraphs 1 through 4... of the Office Action. Paragraph 5 in imposing restrictions as to patentably distinct features is readily applicable to chemistry-related inventions and Markush practice. However, Applicant fails to see its applicability in his claimed invention related to "Flip Chip" packaging. Applicant respectfully requests that the restriction requirement imposed in paragraph 5 of the Office Action be removed.

If Applicant conditionally elects claims 1-5 directed to Species II within the election of claims 1-10 mentioned infra.

Please charge any fees other than the issue fee and credit any overpayments to Deposit Account 14-1270.

Respectfully submitted,

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